State of California
Regional Water Quality Control Board
San Diego Region

SUPPLEMENTAL
EXECUTIVE OFFICER SUMMARY REPORT
June 8, 2005

ITEM: 13

SUBJECT: Section 401 Water Quality Certification: City of San Diego, Fashion Valley Road River Crossing Repair, San Diego River. Discussion of impacts to water quality and beneficial uses and alternatives to avoid and minimize impacts. (*Michael Porter*)

PURPOSE: To distribute additional letters received on the road crossing.

SUPPORTING DOCUMENTS:

5. May 27, 2005 comment letter from Town and Country Resort & Convention Center
6. May 27, 2005 comment letter from Atlas Hotels
7. May 31, 2005 comment letter from Mission Valley Tourism Council
8. May 31, 2005 comment letter from San Diego City Fire Fighters.
9. May 31, 2005 City of San Diego response to comment letters from Audubon Society, Sierra Club, State Senator Christine Kehoe, and State Assemblymember Lori Saldaña
10. May 31, 2005 comment letter from Fashion Valley Mall
11. June 1, 2005 letter from Metropolitan Transit System

SUPPORTING DOCUMENT No. 5

May 27, 2005 comment letter from
Town and Country Resort & Convention Center

500 HOTEL CIRCLE NORTH SAN DIEGO, CALIFORNIA 92108 TELEPHONE (619) 291-7131

May 27, 2005

Town and Country
RESORT & CONVENTION CENTER

Mr. John Minan, Chairman
SDRWQCB
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Dear Mr. Minan,

The San Diego City Council has recognized the serious consequences of continued delays to the repair of Fashion Valley Road at the San Diego River and has authorized the necessary personnel and financial resources for that project. On behalf of local residents and adjacent businesses, as well as guests and employees of the Town and Country Hotel, I ask that the San Diego Regional Water Quality Control Board expedite its process and provide the necessary permits in order to commence required repairs.

Continued delays in repairs only contribute more to the heavy traffic and considerable delays on Friars Road at Fashion Valley Shopping Center, and require lengthy detours for residents, hotel guests, golfers and shoppers. Both the congestion and the detours negatively impact our local environment and quality of life through increased air pollution and gasoline consumption.

The suggestion of a temporary, one lane "Bailey Bridge" is a false promise that will only confuse motorists and cause increased frustration. The premise that Fashion Valley Road is "open" because of a temporary bridge, when in reality it will result long queuing of cars and trucks, will not meet the needs for access to the area.

And finally, in personal dialogue with public safety officials they have expressed a concern that the current closure of Fashion Valley Road significantly hinders emergency response times to and from the Hotel Circle area. Nothing would be more devastating to the local tourism economy than a guest emergency made worse by the slow repair of the City's biggest pothole. I sincerely hope we never see this headline, VISITORS DIE AS EMERGENCY RESPONDERS MUST CIRCUMNAVIGATE CITY'S LARGEST POTHOLE.

I urgently request you take whatever action is necessary to expedite the repair of Fashion Valley Road at the San Diego River.

Sincerely,

Duke Sobek,
Vice President & General Manager
Town and Country Resort & Convention Center

m&c Gold Key Award

SUPPORTING DOCUMENT No. 6

May 27, 2005 comment letter from
Atlas Hotels

500 HOTEL CIRCLE NORTH POST OFFICE BOX 85098 SAN DIEGO, CALIFORNIA 92186-5098 (619) 291-2232

May 27, 2005

ATLAS HOTELS

Mr. John Minan, Chairman
Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

RE: Agenda, June 8 2005, Item # 13

Dear Mr. Minan,

The issue of the repair of Fashion Valley Road at the San Diego River is of foremost importance to Atlas Hotels. As the owner of the adjacent Town and Country Resort and Convention Center, the loss of the use of this major north/south traffic artery in Mission Valley has caused serious economic harm.

Now, five months after the collapse of Fashion Valley Road, with City of San Diego funding in place to make the repairs and reopen the road, all that is necessary are the appropriate permits from the San Diego Regional Water Quality Control Board. I understand that other interested parties have suggested the construction of an all-weather crossing at this site. Estimates from City staff that the process for this alternative fix will require approximately 2 to 3 years, makes this alternative unreasonable and unacceptable at this time. The business volume of the Town and Country Hotel, and that of all businesses in the immediate area of the sink hole have been negatively affected since the collapse in late December 2004. And now, with our busiest business season upon us, I anticipate that our business volume will suffer even more as a result of the limited access to the hotel caused by this disaster and subsequent delays. Please don't extend this inconvenience and negative economic impact to 2 or 3 years.

In addition to the negative impact upon business volumes, Fashion Valley Road provides critical access to Hotel Circle North and the northwest end of Mission Valley for public safety vehicles. Emergency response times have increased for emergency vehicles to reach not only the Town and Country Hotel, but also the Handlery Hotel and the Red Lion Hanalei Hotel, both located on Hotel Circle North. These three hotels represent over 1,600 hotel rooms that, over the next ninety days, will be operating a peak capacity. An unforeseen emergency at any of these properties will only be exacerbated by the lengthened emergency response. Each day the repairs are delayed only increase the possibility of the occurrence of such an emergency.

For the businesses adjacent to the sink hole, tourists staying in Mission Valley and local residents, the priority is to make the repairs to the sink hole and reopen Fashion valley Road. Any alternative consideration should take place after the road is open.

Earnestly,

C. Terry Brown, President
Atlas Hotels, Inc.

SUPPORTING DOCUMENT No. 7

May 31, 2005 comment letter from
Mission Valley Tourism Council

SAN DIEGO'S MV MISSION VALLEY TOURISM COUNCIL

P.O. Box 85098 • San Diego, California 92186-5098

May 31, 2005

Mr. John Minan, Chairman
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

RE: Agenda, June 8 2005, Item # 13

Dear Mr. Minan,

The Mission Valley Tourism Council spends over $50,000 annually to assist our member hotels in attracting and keeping visitors to San Diego in Mission Valley hotels. Two very important amenities that we market are superior shopping and championship golf. With the collapse of Fashion Valley Road at the San Diego River and the closure of the road at that point, access to the much-promoted Riverwalk Golf Course and Fashion Valley shopping has become very limited and inconvenient.

I have received assurances from the City of San Diego, particularly from the office of City Council member Donna Frye, who represents the Mission Valley area, that all of the necessary elements are in place to begin the road repairs except the required permits from the San Diego Regional Water Quality Control Board. On behalf of the 26 lodging establishments in Mission Valley, that together comprise over 15% of the total hotel room inventory in the City of San Diego, I urge you to act quickly to provide the necessary permits so that the repairs can begin.

Additionally, every hotel and motel operator in Mission Valley is acutely aware of the possible increased response time required for emergency services as a result of the Fashion Valley Road closure. We all know that in some medical emergencies, every second counts, and we count on the timeliness of our police and fire first responders in such an emergency. Fashion Valley Road provides a vital link used by police and fire services to access the Hotel Circle businesses. We need that link reopened as soon as possible.

Thank you for your careful consideration of this request.

Sincerely,

James L. Oddo, President
Mission Valley Tourism Council

SUPPORTING DOCUMENT No. 8

May 31, 2005 comment letter from
San Diego City Fire Fighters

SAN DIEGO CITY FIRE FIGHTERS
10405 SAN DIEGO MISSION RD., STE. 201
PHONE 619 - 563-6161
SAN DIEGO, CALIFORNIA 92108
FAX 619 - 563-0351

LOCAL 145, I.A.F.F.

Affiliated with: INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS AFL-CIO, SAN DIEGO-IMPERIAL COUNTIES LABOR COUNCIL, CALIFORNIA LABOR FEDERATION, CALIFORNIA C.O.P.E., SAN DIEGO COUNTY C.O.P.E., CALIFORNIA PROFESSIONAL FIRE FIGHTER'S/P.A.C.

May 31, 2005

Mr. John Minan
Chairman
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

RE: Agenda, June 8, 2005, Item #13

Dear Mr. Minan:

On behalf of the 1,225 members of the San Diego City Firefighters, we respectfully request that all necessary permits be considered to repair and reopen Fashion Valley Road at the San Diego River. It has been five months since heavy rains damaged this critical traffic artery and the continued delay in its reopening only further exacerbates the issue of providing fire protection and medical services in Mission Valley.

As you are probably aware, we have no fire station in Mission Valley today and it takes the Fire Department nine minutes to reach Mission Valley with no traffic. With traffic or any kind of inclement weather that response time increases to 12 minutes. The national standard to provide fire and rescue services to save a life is to respond to an incident within six minutes. The detour that currently exists on Fashion Valley Road at the San Diego River not only eliminates a major access route for firefighters and paramedics, it increases response times placing the lives of our citizens and visitors at risk. The men and women who place their lives on the line to provide firefighting and medical aid to the City see this situation as unacceptable and one that needs correcting immediately.

If the funding from the City of San Diego is available why are we delaying the repair work? If not fixing this road places lives at risk, why are we not doing everything possible to find a solution now? Fashion Valley Road is an important link for firefighters and paramedics to serve this community. This road must be repaired today and not after a fatal incident involving someone's life forces us into acting.

Thank you for your consideration of this correspondence.

Sincerely,

JOHNNIE PERKINS
Director of Community and Government Affairs

SUPPORTING DOCUMENT No. 9

May 31, 2005 City of San Diego response to
comment letters from Audubon Society, Sierra Club,
State Senator Christine Kehoe, and State Assemblymember Lori Saldaña

THE CITY OF SAN DIEGO

May 31, 2005

Mr. John Minan, Chairman
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Subject: Fashion Valley Road River Crossing Repair Project (File No. 05C-030)

Dear Mr. Minan:

The City of San Diego Engineering and Capital Projects Department appreciates the opportunity to respond to issues raised in the packet of letters and e-mails sent to us by RWQCB staff on May 20, 2005, and to issues raised in the Staff Report to you dated May 26, 2005. Since there were two key issues that were raised in most of the letters and e-mails relating to alternative crossing structures (specifically an all-weather crossing) and the possibility of the use of temporary crossing structures while long-term alternatives are considered, we are responding to those issues in the body of this letter. We have also prepared responses to other issues raised in each letter and have included them as attachments to this letter (Attachment 1).

Temporary/Bailey Bridge Crossing

The Fashion Valley Road at the San Diego River Crossing is located in a floodway designated by FEMA (see Attachment 2). According to the San Diego Municipal Code 143.0146(a)(7), "In all floodways, any encroachment, including fill, new construction, significant modifications, and other development is prohibited unless certification by a registered professional engineer is provided demonstrating that encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge." The base flood discharge refers to the 100-year event discharge. This section of the Code is almost verbatim to a section in the Code of Federal Regulations (CFR 60.3(d)(3)). The City is required to notify FEMA about the proposed changes and prove that there won't be any flood level impacts resulting from those changes. Significant modifications would include any changes, including reductions, in the flood levels upstream. Any modification to the design of the crossing, permanent or temporary, would thus require formal FEMA submittals and approvals.

Some of the public comments mentioned the Hollister Street Bailey Bridge and doing something similar at this location. In addition to the above constraints, please note that Fashion Valley Road

Transportation Engineering Division
Engineering and Capital Projects • 1010 Second Avenue, Suite 1200 • San Diego, CA 92101-4905
Tel (619) 533-3173

crossing is different from the Hollister Street crossing in many aspects, but particularly as it relates to the traffic volumes of each road. Please see attached table for traffic volumes (Attachment 3).

All Weather Crossing/Alternative Structures

The same discussion made in the previous section (Temporary/Bailey Bridge) in reference to zero increase in the 100-year base flood elevation also applies here.

The County Drainage Design Manual requires that the freeboard under the lowest chord of a bridge shall be a minimum of 1 ft during the 100-year design event. See pages 5-9 of the County Manual (Attachment 4). The freeboard is required in order to avoid any potential for hydraulic uplift forces, debris obstruction, and adverse impact to upstream facilities. Caltrans also requires that bridges be designed for Q_{100} and have a freeboard of 0.6 meter (equivalent to 2 ft). Please see Section 11.21 of Caltran's Design Manual (Attachment 5). Based on the above discussions and regulations, any new bridge located in a designated floodway, shall be above the 100-year base flood elevation and shall have a freeboard in order to be permitted

In order to meet all of these requirements, the bottom elevation of a bridge would have to be approximately 5.5 feet higher than the existing road elevation. This elevation would be in conflict with the existing trolley bridge. Avoiding the existing trolley bridge and the trolley when it is moving over the tracks, would then require a much taller structure. An all weather bridge would be about 44.5 feet above the existing road. Attached is cross section of the road showing the 100-year base flood elevation, trolley, and horizontal line representing such a bridge (Attachment 6).

Staff evaluated the all weather bridge and determined that it is not doable at this time for the following reasons:

- A bridge 44.5 feet higher than the existing road will eliminate access to businesses in the area.
- Such a bridge also will eliminate access to the Metropolitan Transit System station, which generates approximately 50-60 bus trips per day (due to the collapsed crossing, buses are having to be rerouted which is resulting in additional costs for MTS and inconvenience for transit riders).
- At a maximum grade of 8% slope, it would be a challenge for the bridge to tie in to existing roads (i.e. Friars Road and Camino Del Rio North). See attached detail (Attachment 6).
- Removing the Fashion Valley Road and without alternative grade control structures, there would be adverse impacts to existing facilities and structures (see discussion below).
- Any change in structure design will require additional permits and environmental analysis to address impacts (e.g., hydrology, biology, noise, and visual).
- Cost
- Schedule

Clear Span Structure:

Early in the design process after the road failed, the City also considered a Clear Span alternative with a soft bottom and other culvert alternatives. The Clear Span is a prefabricated arched reinforced concrete culvert. The road would still be under the 100 year flood base elevation. The installation of a Clear Span Structure would not alleviate the flooding issue associated with the road. Clear Span Structure will require the installation of deep footings and / or piles in the river to support the road. Detailed analysis for the hydraulic uplift forces would be required to determine the thickness and weight of the clear span structure in order to resist such forces. Impacts to upstream and downstream structures and facilities would also need to be studied closely. After evaluating a soft bottom structure, staff concluded that the potential for scour is high. Accordingly, this structure is not a feasible alternative for the road crossing.

Also please note that the above discussion on FEMA applies here as well, and additional permits, environmental analysis, and geotechnical evaluation will be required.

Hydraulic Control Structures:

The San Diego River at Fashion Valley Road currently has an elevation of 9 feet downstream and 17 feet upstream for a total of 8 feet of vertical drop through the crossing. The road is acting as a grade control structure that is controlling velocities and protecting the channel between Fashion valley Road and the FSDRIP project. If the drop structure is eliminated (by removing the road), then erosion will severely impact the stability of Avenida Del Rio and the foot bridge between the Town and Country hotel and Fashion Valley Mall. The upstream and downstream bed of the river has already established its sediment equilibrium. Therefore, any changes at this location will result in changes to the upstream and downstream bottom elevations of the river, and a soft bottom at this location would likely introduce changes to the hydraulics of the river with the potential for adverse impacts. The FEMA studies and other hydraulic studies that were the basis for many projects in the area including Fashion Valley Mall, Golf Course, and Trolley might then no longer be valid.

Cleanup and Abatement of Collapsed Bridge Debris:

The Engineering and Capital Projects Department has also received the Cleanup and Abatement Order No R9-2005-0174. In our resubmittal letter to RWQCB staff dated May 3, 2005, we had stated that we believed that the vast majority of debris had been retained in the construction footprint. We then stated that "removal of bridge debris both within and outside of the construction footprint will be accomplished by a combination of utilizing mechanical equipment (such as cranes and/or hydraulic excavators) for larger debris from within the construction footprint or adjacent properties avoiding the river bed and banks, and hand-removal of any visible smaller debris by construction personnel during lower flows of the river whenever safety permits. Debris will be legally disposed of at a landfill." When we stated that "E&CP does not propose dredging to remove any debris that may have migrated downstream beyond the construction footprint," we were attempting to avoid impacts to vegetated wetland areas downstream. We were unaware of the gravel bar that had formed and in no way were attempting to avoid removal responsibility. We will be working with our contractors to determine the most environmentally

dredging to remove any debris that may have migrated downstream beyond the construction footprint," we were attempting to avoid impacts to vegetated wetland areas downstream. We were unaware of the gravel bar that had formed and in no way were attempting to avoid removal responsibility. We will be working with our contractors to determine the most environmentally sensitive method of debris removal and will provide our plans to the Board in accordance with the CAO. However, we are concerned that the order to cleanup and remove the debris without approval of an in-kind replacement structure will create erosion issues that could subject the City to additional liability.

Conclusion:

Since the collapse of the road in December, City staff has evaluated many alternatives for rebuilding the failed Fashion Valley Road, including tunnel, bridge, and clear span alternatives. The Engineering and Capital Projects Department believes that while there may be feasible alternatives to improve the crossing in such a manner that will improve the morphology of the river, such alternatives will require extensive analysis and approvals involving substantial time and cost. The only feasible alternative for getting Fashion Valley Road back in service in a timely manner is the replacement of the road in-kind. Reestablishment of the crossing does not preclude study of or eventual replacement with an alternative crossing structure, such as a ten-year crossing as recommended in the Mission Valley Community Plan.

We hope that this letter addresses the issues raised by the RWQCB staff and comment letters received by the Board. We respectfully request that the Board grant our 401 certification for the proposed dewatering needed to construct the replacement crossing so that we can get this important community circulation link back into service.

Sincerely,

Kerry Santoro
Senior Environmental Planner

Attachments:

1. Specific Responses to Letters received by RWQCB
2. FEMA map for the area, map number 06073C1618 F
3. Traffic Volumes for Fashion Valley Rd. and Hollister St.
4. County of San Diego Driange Design manual, Pages 5.6 -5.8
5. Caltrans Bridge Design Manual, section 11.21
6. Cross section profile of Fashion Valley Road at the San Diego River Crossing, showing the trolley and proposed all weather bridge.

SPECIFIC RESPONSES TO ISSUES RAISED IN LETTERS TO THE REGIONAL BOARD:

San Diego Audubon Society

Feasibility of replacing the low-flow crossing with an all weather bridge (and alternative grade control structure): As discussed in our letter, City staff investigated the feasibility of such a replacement and found that due to FEMA regulations, constraints imposed by the existing trolley structure, the need for access to adjacent properties (including Fashion Valley Transit Center) and connections to Friars Road and Hotel Circle North, an all weather crossing at this location is not feasible.

Federal or State grants: The City is supportive of obtaining grants to study and potentially replace the existing/proposed structure design and will work proactively with the Board to identify and apply for such grants. We recommend that such studies consider the following: Clearance above the 100 years base flood elevation; replacement of the structure in context of the river system and upstream structures; grade separation from the trolley; maintenance of access to businesses in the area and the Fashion Valley Transit Center; tie-in to existing roads (i.e. Friars Road and Hotel Circle North); traffic volume; environmental impacts and permits; cost and schedule.

Modular Temporary Bridge: As indicated in our letter, any alternative structure that is significantly different in design--whether temporary or permanent--will require additional studies and procedures that could take one to two years, if not longer. The Bailey Bridge used on Hollister Street was put in place after floods carved out a new section of the Tijuana River through a portion of the Hollister Street roadway. There are significant differences between the environmental settings and traffic volumes of Hollister Street and Fashion Valley Road that make use of such a structure impracticable at this location.

Assemblymember Lori Saldaña

More technologically sound structures: While the City believes that the proposed replacement of corrugated metal pipes with reinforced concrete pipes represents a more technologically sound structure, we understand that the request references structures that would enhance the morphology of the river. As indicated above, we are willing to pursue grants and assist in studies regarding such replacement structures, but there is no temporary alternative solution that could be put in place in a timely fashion. There is no reason that the proposed emergency replacement structure could not be removed once such studies are complete and funding for an alternative structure is secured.

Hollister St. Bailey Bridge: Please see response to S.D. Audubon Society, above.

Long-term solutions: The City agrees with the need to study long-term solutions, but we believe that it needs to be within the context of the entire river. This crossing is the furthest downstream grade control structure in the river. The morphological degradation

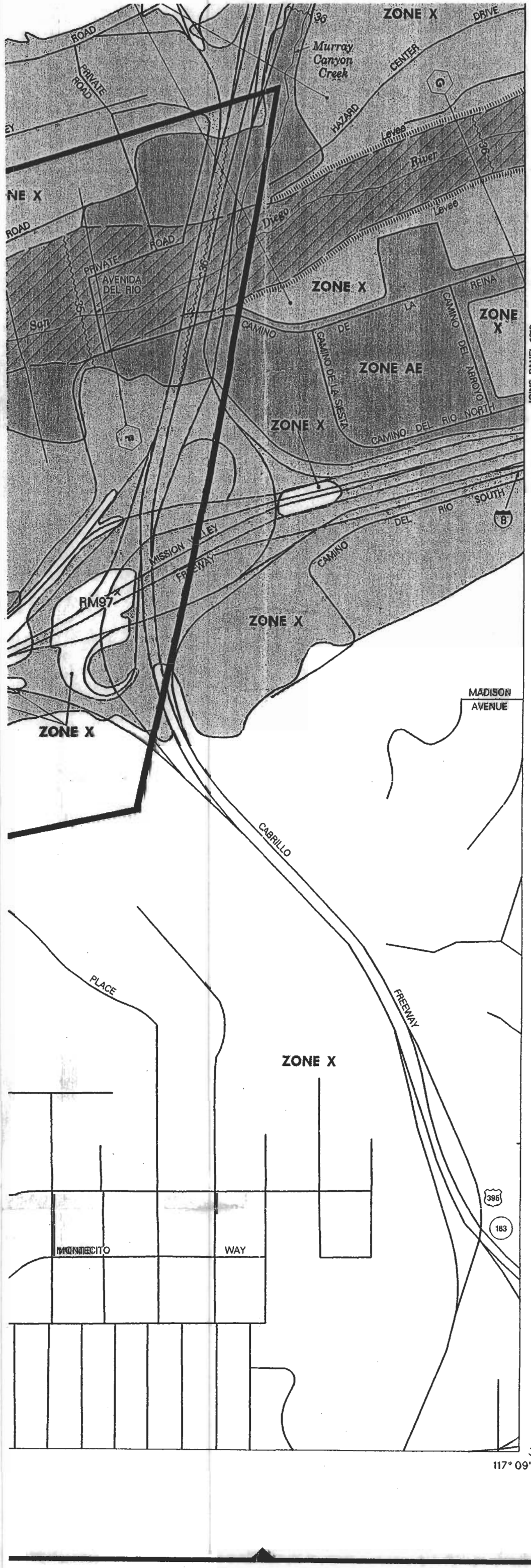
of the river begins with the structures that are furthest upstream. The City believes that the enhancement of beneficial uses of the river at this location would be minimal if not addressed contextually within the reach of the entire river.

Senator Chris Kehoe

Long-term Solutions: As stated above, the City agrees with the need to study a long-term solution to this and other grade-control crossings in the San Diego River, and is amenable to working with the Regional Board and others to obtain funding for studies and replacement structures. The City also agrees that leaving the road in its current condition is unacceptable. However, removing and/or changing the bridge without replacing it in kind subjects the City to the FEMA process and requirements for studies to determine that there will be no impacts as a result. The City's only short-term option for cleaning up the debris caused by the collapse is to replace the crossing without altering the design.

Eric Bowlby

Please see above responses to S.D. Audubon Society



• M2	River Mile
97° 07'30", 32° 22'30"	Horizontal Coordinates Based on North American Datum of 1927 (NAD 27) Projection.

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Coastal base flood elevations apply only landward of 0.0 NGVD, and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of Special Flood Hazard (100-year flood) include Zones A, AE, AH, AO, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

This map may incorporate approximate boundaries of Coastal Barrier Resource System Units and /or Otherwise Protected Areas established under the Coastal Barrier Improvement Act of 1990 (PL 101-591).

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine if corporate limits have changed subsequent to the issuance of this map.

For community map revision history prior to countywide mapping, see Section 6.0 of the Flood Insurance Study Report.

For adjoining map panels and base map source see separately printed Map Index.

MAP REPOSITORY

Refer to Repository Listing on Map Index

EFFECTIVE DATE OF
COUNTYWIDE FLOOD INSURANCE RATE MAP:

JUNE 19, 1997

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE DATE shown on this map to determine when actuarial rates apply to structures in zones where elevations or depths have been established.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET

500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

SAN DIEGO COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 1618 OF 2375
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS: COMMUNITY	NUMBER	PANEL	SUFFIX
SAN DIEGO, CITY OF	060295	1618	F

REVISED TO REFLECT LOMR DATED NOV 22 2002

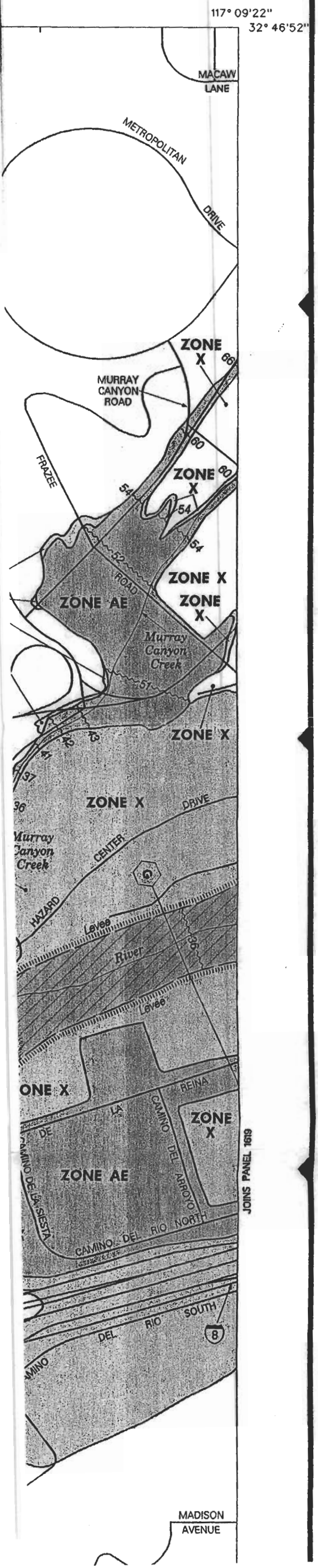
MAP NUMBER
06073C1618 F

EFFECTIVE DATE:
JUNE 19, 1997

Federal Emergency Management Agency

Attachment 2

G



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A No base flood elevations determined.

ZONE AE Base flood elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE A99 To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.

ZONE V Coastal flood with velocity hazard (wave action); no base flood elevations determined.

ZONE VE Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X Areas determined to be outside 500-year floodplain.

ZONE D Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

Identified 1983 | Identified 1990 | Otherwise Protected Areas

Coastal barrier areas are normally located within or adjacent to Special Flood Hazard Areas.

Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 — Base Flood Elevation Line; Elevation in Feet. See Map Index for Elevation Datum.

D — D — Cross Section Line

(EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone. See Map Index for Elevation Datum.

RM7 — Elevation Reference Mark

M2 — River Mile

97° 07'30", 32° 22'30" — Horizontal Coordinates Based on North American Datum of 1927 (NAD 27) Projection.

NOTES

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To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET

CITY OF SAN DIEGO
060295

ZONE X

REVISED AREA

ZONE A

ZONE X

ZONE X

ZONE X

ZONE X

ZONE X

ZONE AE

ZONE X

ZONE X

ZONE X

ZONE X

ZONE X

ZONE X

ZONE X

ZONE X

Fashion Valley Road culverted crossing

CUMBRES

ROAD

FRIARS

AVNDA DE LAS TIENDAS

PRIVATE ROAD

FASHION VALLEY

WEST FASHION

PRIVATE ROAD

PRIVATE ROAD

PRIVATE ROAD

AVENIDA DEL RIO

Canyon Creek

HAZARD CENTER

Levee

River

Levee

CAMINO DE LA SIESTA

CAMINO DEL ARROYO

CAMINO DEL RIO NORTH

CAMINO DEL RIO SOUTH

MISSION VALLEY FREEWAY

RIENA

RM97

RM96

NORTH

SOUTH

CIRCLE

CIRCLE

PRIVATE ROAD

HOTEL CIRCLE COURT

PRIVATE ROAD

MADISON AVENUE

BACHMAN PLACE

CABRILLO FREEWAY

JOINS PANEL 1619

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 16 SOUTH, RANGE 3 WEST.

Attachment 3

CITY OF SAN DIEGO - TRAFFIC ENGINEERING

Machine Count Traffic Volumes - City Streets

All From Dates 1/1/96 to 9/30/03

STREET NAME	LIMITS	BLOCK NOS.	STATION NUMBER	DIRECTION	WK-DAY VOLUME	STARTING DATE	FILE NUMBER
FAMOSA BL	[NIMITZ R-A - FAMOSA R-E]	02310 -	NONE	WEST	2000	1/9/97	0005-97
				*TOTAL	12500		
FAMOSA BL	[RIALTO ST - W PT LOMA BL]	02900 - 02999	1148	BOTH	2500	6/19/96	0686-96
				BOTH	2930	6/6/00	0639-00
FANUEL ST	[REED AV - THOMAS AV]	04200 - 04300	1323	BOTH	5900	7/31/96	0777-96
				BOTH	5400	7/23/99	0442-99
FANUEL ST	[HORNBLEND ST - GARNET AV]	04450 - 04500	1322	BOTH	9400	7/7/97	0433-97
				BOTH	7570	7/18/00	0665-00
FANUEL ST	[LORING ST - OPAL ST]	05000 - 05050	1321	BOTH	2600	7/7/97	0434-97
				BOTH	2920	7/26/00	0703-00
FANUEL ST	[FOOTHILL BL - AGATE ST]	05200 - 05249	1324	BOTH	4600	7/29/99	0550-99
FASHION VY RD	[HOTEL CR N - FRIARS RD]	00900 - 01399	6506	NORTH	5800	11/7/96	1107-96
				SOUTH	4300	11/7/96	1108-96
				*TOTAL	10100		
			NONE	NORTH	7100	7/28/99	0678-99
				SOUTH	4400	7/28/99	0678-99
				*TOTAL	11500		
			6506	NORTH	6400	10/25/99	1027-99
				SOUTH	5200	10/25/99	1028-99
				*TOTAL	11600		
				NORTH	7390	4/9/03	0398-03
				SOUTH	5520	4/9/03	0399-03
				*TOTAL	12910		
				NORTH	7820	5/6/03	0568-03
				SOUTH	5500	5/6/03	0569-03
				*TOTAL	13320		
FAY AV	[NAUTILUS ST - W MUIRLANDS DR]	06900 - 07100	1832	BOTH	7700	7/11/97	0475-97
				BOTH	8800	4/23/98	0417-98
				BOTH	8530	7/26/00	0708-00
FAY AV	[RUSHVILLE ST - GENTER ST]	07150 - 07300	1831	BOTH	11500	8/2/96	0844-96
				BOTH	12600	7/28/99	0460-99
FAY AV	[GENTER ST - PEARL ST]	07300 - 07500	1834	BOTH	7200	8/2/96	0786-96
				BOTH	9000	7/28/99	0461-99

STREET NAME	LIMITS	BLOCK NOS.	STATION NUMBER	DIRECTION	WK-DAY VOLUME	STARTING DATE	FILE NUMBER
HOLLISTER ST	[PALM AV - DONAX AV]	00700 - 00800	4113	BOTH	5400	1/8/98	0049-98
HOLLISTER ST	[FLOWER AV - STARBURST LN]	01140 - 01230	4111	BOTH	11800	2/6/98	0067-98
				BOTH	12220	12/7/00	1154-00
HOLLISTER ST	[ILEX AV - IRIS AV]	01460 - 01500	NONE	NORTH	3900	4/13/99	0286-99
HOLLISTER ST	[IRIS AV - LEON AV]	01500 - 01700	4110	NORTH	3500	2/10/97	0130-97
				SOUTH	3800	2/10/97	0131-97
				*TOTAL	7300		
				NORTH	3900	4/13/99	0288-99
				SOUTH	3900	4/13/99	0289-99
				*TOTAL	7800		
				NORTH	3800	12/15/99	1224-99
				SOUTH	3900	12/15/99	1225-99
				*TOTAL	7700		
HOLLISTER ST	[ATHERTON AV - SUNSET AV]	01940 - 02100	4181	BOTH	1900	2/11/97	0135-97
				SOUTH	800	5/18/99	0318-99
				NORTH	900	5/19/99	0317-99
				BOTH	1700	12/15/99	1223-99
				BOTH	1870	12/4/02	1229-02
HOLLISTER ST	[SUNSET AV - MONUMENT RD]	02100 - 02899	NONE	BOTH	1300	7/16/96	0709-96
				NORTH	600	5/19/99	0319-99
				SOUTH	500	5/19/99	0320-99
				*TOTAL	1100		
HOME AV	[BEECH ST - GATEWAY DR]	03950 - 04100	3181	NORTH	9280	4/6/00	0308-00
				SOUTH	10160	4/6/00	0308-00
				*TOTAL	19440		
HOME AV	[SPILLMAN DR - HIXSON AV]	04130 - 04200	3180	NORTH	9000	3/18/96	0359-96
				SOUTH	11300	3/18/96	0360-96
				*TOTAL	20300		
				NORTH	9580	3/21/02	0348-02
				SOUTH	11420	3/21/02	0348-02
				*TOTAL	21000		
HOME AV	[SD 805 - FAIRMOUNT AV]	04270 - 04400	3183	NORTH	14000	3/18/96	0357-96
				SOUTH	10700	3/18/96	0358-96
				*TOTAL	24700		

Additional geotechnical and geomorphological investigation and analyses may be required for natural channels or improved unlined channels to verify that the channel will remain stable based on the maximum design velocities.

5.3.6 Subcritical and Supercritical Flow

Flow can be classified as critical, subcritical, or supercritical according to the level of energy in the flow. This energy is commonly expressed in terms of a Froude Number (FR) and critical depth (d_c). Section 5.10.1 discusses the characteristics of critical flow and describes methods for determining Froude Number and critical depth. All channel design submittals shall include the calculated Froude Number (FR) and critical depth (d_c) for each unique reach of channel to identify the flow state and verify compliance with these criteria.

Flow at or near the critical state (FR=1.0 or d=d_c) is unstable. As a result, minor factors such as channel debris have the potential to cause severe and acute changes in flow depth. Whenever practicable, channels shall be designed to convey their design flow following the flow energy limitations described in Table 5-1. When necessary to convey flows at or near critical state ($0.80 < FR < 1.20$), flow instabilities may be accommodated by providing additional freeboard.

Table 5-1 Limitations on Flow Energy for Rectangular and Trapezoidal Channels

Design Flow Condition	Froude Number
Subcritical	FR <0.80
Supercritical	FR >1.20

In rare cases, the specific energy relationship of a cross-section might result in a situation where flows less than the design flow may have a greater depth than the depth calculated for the design flow. The design engineer shall check supercritical channel designs to evaluate whether the channel will maintain freeboard requirements (Section 5.3.7) during flows less than the design flow (see suggested method in Section 5.3.5).

5.3.7 Freeboard

In the context of this Manual, freeboard is the additional height of a flood control facility (e.g., channel, levee, or embankment) measured above the design water surface elevation. All channel linings shall extend to the design freeboard height. In this way, the freeboard will provide a factor of safety when designing open channels. Freeboard shall be calculated using the maximum Manning roughness coefficient expected during the lifetime of the channel. Unless other information justifies a lower roughness value, the design engineer may assume the maximum lifetime channel roughness to be n=0.150.

Open channel facilities conveying a design flow of less than 10 cfs shall have a minimum freeboard of 0.5 feet. Open-channel facilities conveying a design flow of 10 cfs or more shall have a design freeboard based on a minimum freeboard of 1.0 foot, with allowances for velocity, super-elevation, standing waves, and/or other water surface disturbances such as slug flow. Section 5.10.3 and Section 5.10.4 provide design methods for calculating these allowances. Equation 5-1 and Equation 5-2 describe the minimum design freeboard for subcritical and supercritical flow designs, respectively:

$$\left(h_{fr}\right)_{SUBCRITICAL} = \max\begin{cases} 1.0 \\ 0.5 + \dfrac{v^2}{2g} + \dfrac{Cv^2T_W}{rg} + \Delta y \end{cases} \qquad (5\text{-}1)$$

Attachment 4

$$(h_{fr})_{SUPERCRITICAL} = 1.0 + 0.025vd^{1/3} + \frac{Cv^2T_W}{rg} + \Delta y \qquad (5\text{-}2)$$

where ...

h_{fr} = minimum required freeboard (ft);
v = flow velocity (ft/s);
g = gravitational acceleration (32.2 ft/s^2);
$\frac{Cv^2T_W}{rg}$ = superelevation allowance (ft), see Section 5.10.5; and
Δy = allowances for other hydraulic phenomenon (ft), (e.g., standing waves, slug flow – see Section 5.10.4.3).

Superelevation allowance is a function of flow velocity, channel geometry, and channel alignment. Applying transition curves to the alignment may reduce the required superelevation allowance. Section 5.10.5 discusses the calculations of superelevation allowance in more detail. The superelevation allowance shall be applied to both banks of the channel. The superelevation allowance shall be applied to channel bends in the in the following manner:

- Begin at a point five times the characteristic wave length of the design flow ($5L_W$), measured from the downstream tangent point of the curve, with no superelevation allowance.
- Taper uniformly to the full superelevation allowance at a point three times the characteristic wave length of the design flow ($3L_W$), measured from the downstream tangent point of the curve.
- Maintain the full superelevation allowance through the curve.
- Continue the top of bank elevation level from the upstream tangent point of the curve to its intersection with the normal top of bank.

Figure 5-11 illustrates freeboard superelevation allowance. Equation 5-3 and Equation 5-4 describe the characteristic wave lengths for subcritical and supercritical flow, respectively.

$$(L_W)_{SUBCRITICAL} = 2T_W \qquad (5\text{-}3)$$

$$(L_W)_{SUPERCRITICAL} = 2T_W\sqrt{FR^2 - 1} \qquad (5\text{-}4)$$

where ...

L_W = characteristic wavelength (ft);
T_W = top width of water surface (ft); and
FR = Froude Number (no dimension).

The freeboard under the lowest chord of bridge deck (i.e., the soffit elevation) shall be a minimum of 1 foot during the 100-year design event. In cases where the bridge has been designed to withstand hydraulic forces of floodwaters and impact from large floating debris, the water surface elevation upstream of the bridge shall maintain a freeboard of at least one foot below the roadway crest and the finished floors of structures within the zone influenced by the bridge headwater. When a bridge crossing increases the existing limits of flooding, the project

owner shall obtain appropriate documentation from affected property owners as required by the governing Agency.

This Manual only describes the County of San Diego's minimum freeboard requirements for open channel design. Major drainage ways involving road crossings or other types of crossings, streams that the Federal Emergency Management Agency (FEMA) has mapped as Special Flood Hazard Areas, or facilities that interface with Caltrans facilities might have significantly different freeboard requirements. For instance, FEMA has established freeboard requirements for channels with levees that can vary significantly from those outlined in this Manual.

5.3.8 Flow Transitions

Channel transitions occur in open channel design whenever there is a change in channel slope or shape and at junctions with other open channels or storm drain. Properly designed flow transitions mimic the expansion or contraction of natural flow boundaries as best as possible, as well as minimize surface disturbances from cross-waves and turbulence. Drop structures and hydraulic jumps are special transitions where excess energy is dissipated by design. Transitions in open channels are generally designed for either subcritical or supercritical flow transitions.

Hydraulic jumps shall be designed to take place only within energy dissipation or drop structures, and not within an erodible channel. Subcritical transitions shall satisfy the minimum transition lengths described in Section 5.10.3. Supercritical transitions shall satisfy the minimum transition lengths described in Section 5.10.4. Special transitions such as drop structures and hydraulic jumps shall satisfy the specifications described in Section 5.12.

5.3.9 Access and Safety

5.3.9.1 Access

Any easement encompassing a channel shall be wide enough to provide for the channel structure and adequate maintenance access. Easements shall be placed on one side of lot or ownership lines in new developments and in existing development where conditions permit.

- The minimum width of any channel easement shall be the top width of channel plus 4 feet on each side of the channel.
- Channels with a top width of less than 40 feet require a minimum 12-foot wide service road parallel to one side of the channel and a 4-foot wide access on the opposite side, whenever practicable.
- Channels 40 feet or more in top width require a minimum 12-foot wide service roads on both sides of the channel, whenever practicable.

Service roads parallel to a channel facility may be omitted when the lack of a service road is not considered detrimental to the maintenance and integrity of the channel. The following are examples of circumstances where service roads parallel to the channel facility may be omitted:

- Channels with a bottom width of 8 feet or less, with a maximum design flow depth of 2 feet.
- Channels with a bottom width of more than 8 feet and a maximum design flow depth of more than 2 feet may omit access roads parallel to the channel when suitable exit-entry ramps are provided at street crossings and at other locations to facilitate travel of maintenance vehicles in the channel bottom. At a minimum, one access ramp must be provided at each end of the channel.

CHAPTER 11 DESIGN STANDARDS

CONTENTS

Attachment 5

construction or flood related impacts: (1) a facility which provides a community's only evacuation route or one that is needed for emergency vehicles, (2) a facility in an unstable stream bed or other dangerous location, (3) a facility that might have a significant adverse impact on natural beneficial flood plain values. It is federal policy to discourage any proposal that includes a significant encroachment.

HYDRAULIC DESIGN CRITERIA

Bridges:

- The basic rule for hydraulic design of bridges is that they should be designed to pass the two percent (2%) probability flood or tide (Q_{50}) or the flood-of-record, whichever is greater without causing objectionable backwater, excessive flow velocities or encroaching on through traffic lanes. Sufficient freeboard, the vertical clearance between the lowest structural member and the water surface elevation of the design flood, should be provided. A minimum freeboard of 0.6 meter is often assumed for preliminary bridge design. An evaluation should be performed to determine if horizontal and vertical driftway requirements warrant a modified freeboard. The freeboard for controlled flow waterways, such as irrigation canals, shall be required by the regulatory agency having jurisdiction.

  The final design should be able to convey the base flood, Q_{100}.

- The base flood (Q_{100}) or overtopping flood, whichever is greater shall be used to evaluate the costs, risks and impacts associated with encroachments on the 100-year base flood plain.

- The minimum design flood for foundation analysis should be the base flood (Q_{100}). Bridges with scourable beds should withstand the effects of the base flood (Q_{100}) without failure. The top of pier footing should be placed at or below the calculated total scour condition including anticipated lateral channel migration. Pile extensions and pile shafts should have sufficient embedment depth for the potential scour conditions.

- Consideration should be given to the long term effects as to the bridge waterway adequacy. This is part of data to be collected and retained for FHWA's use per CFR Section 650.311. Specifically, this data is included in the Sufficiency Rating (see the *Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges*, published by FHWA), which is used in the HBRR Program as a basis for establishing eligibility and priority for replacement and rehabilitation of bridges (CFR 650.409).

Culverts:

There are two primary design frequencies that should be considered in the design of drainage culverts. A culvert should convey:

- The ten percent (10%) probability flood or tide (Q_{10}) without causing the headwater elevation to rise above the inlet top of culvert

- The one percent (1%) probability flood (Q_{100}) without damage to the facility or adjacent property

Open Channels/Conduits:

- Open channels/conduits should be designed according to the above bridge criteria with appropriate freeboard.

Roadside Drainage:

- The spacing of roadway inlets for pavement drainage varies with the desirable limits for water spread, which in turn depend on the: type of facility, design storm frequency, traffic volume, design speed, and any local requirements. The recommended limits for water spread on various types of roadway facilities are provided in Chapter 800 of the Caltrans *Highway Design Manual.*

Additional information on the design of culverts including: hydrologic and hydraulic design considerations, height of fill limitations, protection from abrasion and corrosion, as well as, other economic, construction and maintenance considerations is included in the Caltrans *Highway Design Manual.*

FLOOD PLAIN ENCROACHMENTS

Proposed actions which encroach on a base flood plain or support incompatible flood plain development must be evaluated in a location Hydraulic Study to assess impacts on natural and beneficial flood plain values in accordance with 23 CFR 650A. The location hydraulic study must provide the following information:

- A brief description of the project hydrology
- A description of the types of traffic
- Emergency access data, availability of detours, etc.
- Comments on constraints which influence selection of available alternatives
- The location of property at risk
- An estimate of potential damage to property at risk
- A discussion of the environmental impacts

A summary of the location hydraulic study shall be included in the environmental document. When there is a significant encroachment within the base flood plain, a finding that the project is the only practical alternative (the local agency must assure the opportunity for early public involvement) shall be included in the final environmental document and concurred with by the FHWA.

Encroachments within regulatory floodways are generally not permitted. Local agencies should consult the appropriate federal, State or local regulatory agency for more information.

The design selected for the encroachment must be supported by an analysis of design alternatives, with consideration given to capital costs, risks, and other economic, engineering, social, and environmental concerns. Refer to 23 CFR 650.117 for the required content of the design studies. Upon completion of the environmental process, a hydraulic design study is required as part of the final design process.

The above technical engineering reports shall be prepared by a registered Civil Engineer in the State of California. The reports shall bear the registration seal, signature, license number and registration certificate expiration date of the California Registered Professional Engineer responsible for preparing the report.

When there is a potential for extensive disruption of essential services or incurring losses due to implementation of the proposed action, a comprehensive risk and cost analysis may

be advisable during the final design stage. If a risk/cost analysis is anticipated, it is recommended that the results of preliminary studies be reviewed with the FHWA to confirm the need for the analysis.

For additional information on analysis of encroachments onto a flood plain, refer to Chapter 9, "Flood Plains," of the *Local Assistance Environmental Manual.*

LEVEL OF EVALUATIONS

It is the policy of Caltrans and the FHWA that the level of evaluation comply with federal and State mandated procedures and be commensurate with the risks and environmental impacts involved. An initial level of evaluation, based on preliminary project data, may be established during the Preliminary Environmental Study (PES) (see Chapter 6). Refer to Exhibit 11-D entitled "Preliminary Hydrologic/Hydraulic Summary" for the information to be provided by a local agency "prior to or at" the early coordination meeting. The actual level of evaluation may change due to unforeseen conditions or impacts revealed during the environmental review and detailed design stage of project development. A less comprehensive evaluation is appropriate for encroachments at locations where the risk of property damage or damage to the facility is small. A decision to raise or lower the level of evaluation should be made in consultation with the FHWA.

A rehabilitation project, including widening, represents a significant financial investment and must be evaluated for compliance with current hydraulic design criteria for the project location. Any deviations must be justified and documented in the project files.

A comprehensive list of items to be considered for inclusion in drainage studies and reports is included in Exhibit 11-E, "Checklist for Drainage Studies and Reports." This exhibit also includes an excellent list of references for background information.

SCOUR EVALUATIONS

A scour evaluation should be conducted for all bridges over water. The scour evaluation should include consideration of long term aggradation/degradation, contraction scour, local scour and lateral migration. The details of the scour evaluation shall be commensurate with the risk associated with the structure.

The FHWA has developed Hydraulic Engineering Circular (HEC) #18 "Evaluating Scour at Bridges" to aid in proper development of the necessary scour evaluations. Calculations similar to those in HEC #18 may be used for evaluating scour at bridges. The scour evaluation should be done by an interdisciplinary team consisting of hydraulic, geotechnical and structural engineers. Bridges with scourable beds should withstand the effects of the Q_{100} flood without failure. HEC #20 entitled "Stream Stability at Highway Crossings" is another resource for evaluating stream stability at design locations. For existing bridges that are susceptible to scour, refer to HEC #23, "Bridge Scour and Stream Instability Countermeasure," for suggested preventative measures.

Consideration should be given to the effect of aggregate mining contributing to scour at bridge foundations. Mining without proper monitoring and regulation could jeopardize federal funding for a damaged structure if a local agency is aware of severe degradation due to mining and does nothing to mitigate the loss of material.

GENERAL DESIGN CONSIDERATIONS FOR BRIDGES AND CULVERTS

The effect on all permanent flood control structures either under construction or in place shall be considered in determining the effects of the design flood. Runoff estimates

Convey -- Passage through, or bypass of, the structure without significant damage to encroachments within the flood plain.

Design Flood -- The peak discharge (volume if appropriate), stage or wave crest elevation selected for the design of a facility located within a base flood plain. By definition through lanes will not be inundated by the design flood.

Encroachment -- A facility and/or appurtenant feature located within the limits of a base flood plain.

Flood of Record -- The greatest recorded flood in the drainage basin.

Flood Plain -- Any of the following: (1) the valley area adjacent to a stream or river subject to inundation during periods of high water that exceed normal bank flow elevation, (2) an area adjacent to a lake, estuary, ocean or similar body of water subject to inundation by high water, high tides, surges, tsunamis or any combination of these, (3) an area where the path of the next flood flow is unpredictable, as within the limits of a debris cone, an alluvial deposit, cone, or fan, a debris slope or a talus.

Flood Plain Values -- Fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, groundwater recharge, etc.

Freeboard -- (1) The vertical distance between the lowest structural member of a bridge superstructure and the water surface elevation of the design flood. (2) The vertical distance between the water surface elevation of the design flood and the tops of the sides of an open conduit designed to allow for floating debris or any other condition or emergency, without overtopping the structure.

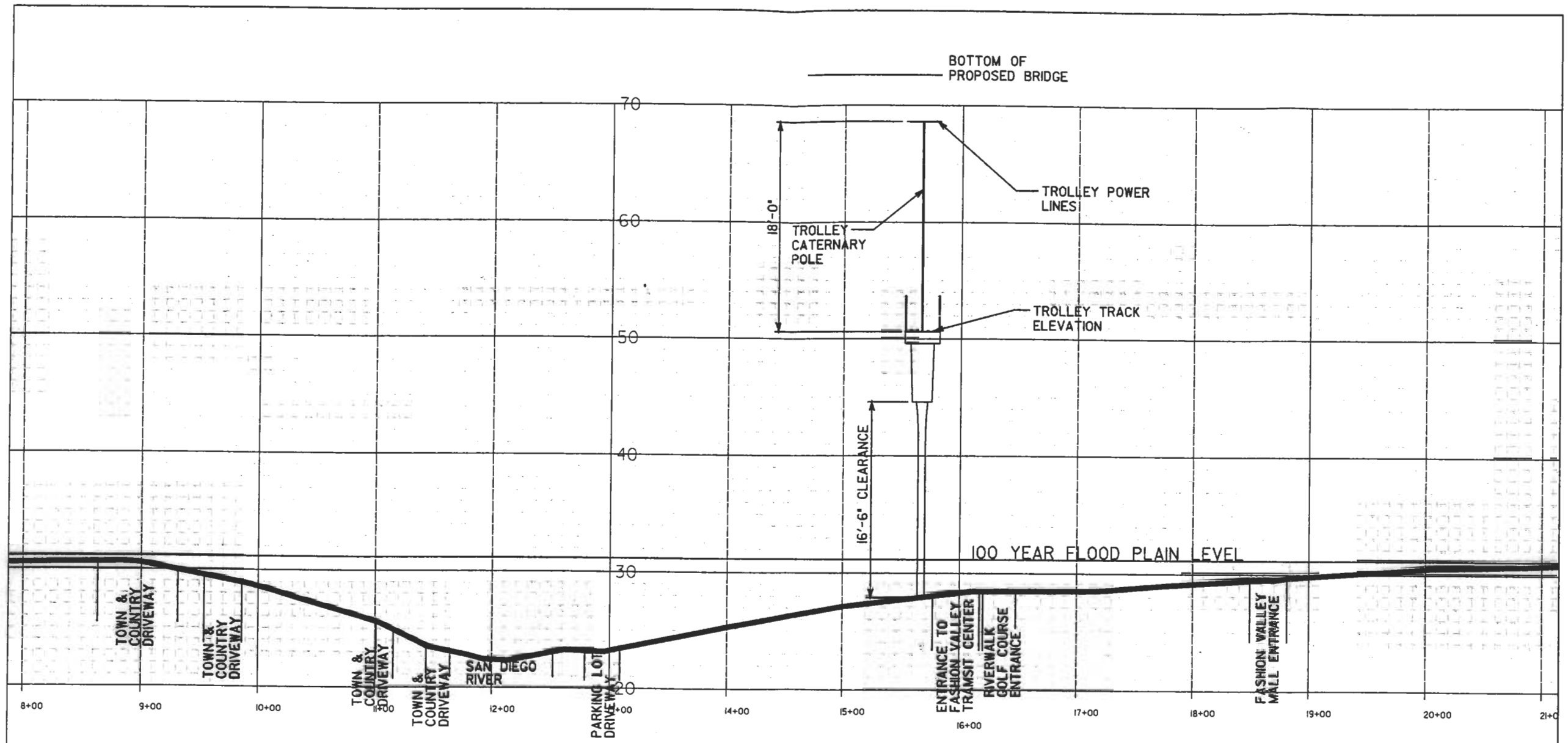
Overtopping Flood -- The magnitude of flood at which the water ceases to be conveyed totally through the drainage structure. Flow may be over the highway, through overflow channels or structures provided for emergency relief or escape to another flood plain.

Regulatory Floodway -- The flood plain area that is reserved in an open manner by federal, State or local requirements, i.e., unconfined or unobstructed either horizontally or vertically, to provide for the discharge of the base flood so that the cumulative increase in water surface elevation is no more than a designated amount (not to exceed 0.3 meter as established by the Federal Emergency Management Agency (FEMA) for administering the National Flood Insurance Program). The physical limits of the floodway will however, vary based on federal, State, or local definition.

Risk -- The consequences associated with the probability of flooding attributable to an encroachment. It shall include the potential for property loss and hazard to life during the service life of the highway.

Risk Analysis -- An economic comparison of design alternatives using expected total costs (construction costs plus risk costs) to determine the alternative with the least total expected cost to the public. It shall include probable flood-related costs during the service life of the facility for highway operation, maintenance, and repair, for highway-aggravated flood damage to other property, and for additional or interrupted highway travel.

Significant Encroachment -- A highway encroachment and any direct support of likely base flood plain development that would involve one or more of the following



FASHION VALLEY ROAD CROSS SECTION

SCALE: 1"=100' HORIZ.
1"=10' VERT.

Attachment 6

SUPPORTING DOCUMENT No. 10

May 31, 2005 comment letter from Fashion Valley Mall

FASHION VALLEY | A Simon® Mall

6/1
Mike Porter —
pls include in
mail for June 8
Bd mtg.

May 31, 2005

Mr. John Minan, Chairman
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Dear Mr. Minan,

The issue of the repair of Fashion Valley Road at the San Diego River is of foremost importance to the Fashion Valley shopping center. On behalf of local residents, as well as the customers and employees of Fashion Valley, I ask that the San Diego Regional Water Quality Control Board expedite its process and provide the necessary permits in order to commence required repairs.

Now, five months after the collapse of Fashion Valley Road, with City of San Diego funding in place to make the repairs and reopen the road, all that is necessary are the appropriate permits from the San Diego Regional Water Quality Control Board. I understand that other interested parties have suggested the construction of an all-weather crossing at this site. Estimates from City staff that the process for this alternative fix will require approximately 2 to 3 years, makes this alternative unreasonable and unacceptable at this time. The business at Fashion Valley and that of all businesses in the immediate area of the sinkhole have been negatively affected since the collapse in late December 2004. Please don't extend this suffering to 2 or 3 years.

In addition to the negative impact upon business volumes, Fashion Valley Road provides critical access to Hotel Circle North and the northwest end of Mission Valley for public safety vehicles. The detours required for public safety vehicles increases the response time for emergencies throughout Mission Valley. An unforeseen emergency will only be exacerbated by the lengthened emergency response.

For the businesses adjacent to the sinkhole, tourists staying in Mission Valley and local residents, the priority is to make the repairs to the sinkhole and reopen Fashion valley Road. Any alternative consideration should take place after the road is open.

Sincerely,

Robert Doherty

Robert Doherty
General Manager
Fashion Valley

7007 Friars Road, Suite 392, San Diego, CA 92108
619.297.3381 | fax 619.294.8291 | www.simon.com

Item No. 13

SUPPORTING DOCUMENT No. 11

June 1, 2005 letter from Metropolitan Transit System

Metropolitan Transit System

1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
(619) 231-1466 • FAX (619) 234-3407

June 1, 2005

SRTP 820.7 (PC 30101)

State Of California
Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court
San Diego, California 92123

Regional Water Quality Control Board:

SUBJECT: REOPENING OF FASHION VALLEY ROAD (SAN DIEGO)

During the heavy rains of this past winter, the roadbed of Fashion Valley Road failed and collapsed into the San Diego River. At your June 8, 2005 meeting, Item No. 13 on the agenda is a discussion of the Section 401 Water Quality Certification for the City of San Diego's repair to this river crossing. The purpose of this letter is to express the Metropolitan Transit System's (MTS) support of the re-opening of Fashion Valley Road across the San Diego River as soon as possible.

MTS has three routes that used the now-closed segment of Fashion Valley Road (Routes 6, 25, and 990). Combined, these routes carry over 6,500 passengers every weekday. These three routes are currently on detours using Friars Road, or Avenida del Rio and Camino de la Reina. The detours cause delays and have lengthened trips for our passengers, making transit a less desirable transportation alternative. They have also cost MTS significantly, in time, mileage, and fuel.

Presumably, the environmental impact reports of surrounding developments, including the recent expansion of Fashion Valley Mall, assumed the existence of a river crossing at Fashion Valley Road when calculating traffic impacts on the area. The closure of this crossing has quite negatively impacted traffic on the surrounding street network, affecting the schedules and on-time performance of all nine of our bus routes in the area.

MTS supports the City's petition to reopen this road segment. The reopening of this important traffic connection would bring immediate relief to our bus passengers and improve our ability to provide quality transit service to the Mission Valley area. Please contact Conan Cheung, Director of Planning and Performance Monitoring, at (619) 515-0933 should you have any questions or comments.

Sincerely,

Paul C. Jablonski
Chief Executive Officer

L-FVRD.H2OBD.DDESMOND

Cc: Conan Cheung, Claire Spielberg, Susan Hafner (MTS)
Toni Bates (SANDAG)
Miriam Kirshner, Steve Celniker, Kerry Santoro (City of San Diego)